



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/780,146

02/17/2004

Richard A. Bye

BP2970

3726

51472

7590

07/07/2009

GARLICK HARRISON & MARKISON

P.O. BOX 160727

AUSTIN, TX 78716-0727

EXAMINER

CAI, WAYNE HUU

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

07/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/780,146	Applicant(s) BYE, RICHARD A.	
	Examiner WAYNE CAI	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-42 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 August 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on April 14, 2009 has been entered.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Figure 4E as illustrated in page 8 of drawings dated August 16, 2004. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR

Art Unit: 2617

1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action.

The objection to the drawings will not be held in abeyance.

Response to Arguments

3. Applicant's arguments, see page 13 of Remarks, filed March 17, 2009, with respect to the rejection(s) of claim(s) 12, 13, 15, 16, 19, 23, 25, 28, 32, 33, 35, 36 and 39 under 35 U.S.C. 102(e) as being anticipated by Pepin et al. (US 2004/0160979) and claims 14, 17, 18, 20-22, 24, 26, 27, 29-31, 34, 37, 38 and 40-42 under 35 U.S.C. 103(a) as being unpatentable over Pepin et al. have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Abaye et al. (US 7,260,060) and Wheeler et al. (hereinafter "Wheeler", US 7,242,932).

In order to address the newly added features and/or the amendment dated March 17, 2009, the Examiner now relies on Abaye for the teachings of "selecting a coding scheme from a plurality of supported coding schemes with a programmable Coder/DECoder (CODEC), each of the plurality of supported coding schemes being associated with a different one of a plurality of codec protocols", and for the teachings of many other features as well **because Abaye expressly teaches or suggests at column 6, lines 38-56 a plurality of coding schemes (e.g., G.729A, G.729, G.711, etc).** It is however important to note that

Art Unit: 2617

one skilled in the art would recognize that the phrase "coding scheme" and "codec protocol" are used interchangeably. In other words, these two phrases have the same or equivalent in meaning.

Furthermore, even though the Examiner cites Abaye of the teachings of plurality of coding schemes or plurality of codec protocols. It is worth to mention that the teachings of Pepin still reads on the concept of plurality of coding schemes or plurality of codec protocols.

The Examiner respectfully disagrees with the Applicant's argument set forth in page 13 of Remarks that that the adaptive multi-rate (AMR) speech codec use a single type of coding scheme, and merely switches the bit rate of that particular coding scheme.

The Examiner respectfully reiterates this concept, the AMR speech codec is the general type or general concept of codec. There are many AMR coding schemes or codec protocols that are known in the art and associated with the concept of AMR such as AMR full-rate (FR), AMR half-rate, or AMR enhanced-full-rate (EFR). Each one of these types listed here is known as a different or separate coding scheme or codec protocol. In other words, AMR full-rate is an individual codec protocol, AMR half-rate is another codec protocol, and AMR enhanced-full-rate is a totally different codec protocol. The Examiner respectfully provides a couple references below to support the Examiner's rationale or statement.

A. Spear (US 2004/0037314) teaches or suggests at paragraph 0013 that the **encoded protocol** may be, but are not limited to an enhanced variable

Art Unit: 2617

rate codec (EVRC), a code excited linear prediction (CELP) codec, selective mode vocoder (SMV) codec, **a full rate codec, a half rate codec, and enhanced full rate codec, and an adaptive multi-rate codec**. Clearly, each one of the protocol listed here in Spear's disclosure is a different codec protocol or different coding scheme.

B. Ejzak et al. (US 7,443,879) teaches or suggests at column 2, lines 5-28 that different session initiation protocol user agents may employ different codec formats. For example, wireless session initiation **protocol** user agents may support codec formats such **as adaptive multi-rate (AMR), global system for mobile communications full rate (GSM FR), global system for mobile communications half rate (GMS HR), enhanced variable rate codec (EVRC),** Qualcomm code excited linear prediction (QCELP or 13k), and other codec such as G.711, adaptive differential pulse code modulation (ADPCM). Again, each of these codec formats listed here in Ejzak is a different codec protocol or different coding scheme.

Based on the teachings of these two references, it should be clear to the Applicant that AMR full rate is a coding scheme or codec protocol, and AMR half rate is another coding scheme or codec protocol. Thus, it should be clear to the Applicant that Pepin also teaches or suggests a plurality of coding schemes or codec protocols because Pepin teaches or suggests AMR full rate, AMR half rate, etc.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 12-16, 19-25, 28-36 and 39-42 are rejected under 35 U.S.C.

103(a) as being unpatentable over Abaye et al. (hereinafter "Abaye", US

7,260,060) in view of Pepin et al. (hereinafter "Pepin", US 2004/0160979).

Regarding claim 12, Abaye teaches or suggests a method of servicing real-time communications to a Wireless Local Area Network (WLAN) terminal, comprising:

selecting an initial coding scheme from a plurality of supported coding schemes with a programmable COder/DECoder (CODEC), each of the plurality of supported coding schemes being associated with a different one of a plurality of codec protocols (fig. 3, CALL_SETUP including a selected CODEC. Also, col. 6, line 64 - col. 7, line 9 and col. 9, lines 34-64 describes the step of selecting an initial coding scheme for communication. Furthermore, col. 6, lines 38-56 also describes a plurality of coding schemes, wherein each of the coding scheme is a different codec protocol. For example, G.711, G.729A, G.723.1, each is known as coding scheme. G.711 is known as one codec protocol, G.729A is known as another codec protocol, and G.723.1 is known as a different protocol, etc.);

converting incoming user communications from packetized communications and outgoing user communications to packetized communications according to the selected coding scheme (fig. 6, D/A 31 and A/D 320 are used to convert incoming/outgoing communications. Control unit 340 and digital signal processing 346 are also used);

monitoring the communication quality level between the servicing AP and the LAN terminal to determine the communication quality level delivered between the AP and LAN terminal (the control mechanism implemented in the LAN terminal 14 monitors and analyzes throughput of the communications paths as described in col. 5, lines 56-65 and col. 7, lines 29-41. Furthermore, col. 9, lines 65 to col. 10, line 17 describes the steps of using trace route and/or trace packet to determine the network resources from an originating network resource on a link to another network resource on data network 20. Also, see fig. 3, the TRACE_ROUTE_REQUEST and TRACE_ROUTE_RESPONSE is communicated between terminal 14 and far-end terminal 16); and

Abaye, however, does not expressly teach or suggest:

receiving incoming and outgoing user communications at a user interface of a WLAN terminal;

exchanging packetized communications between a servicing Access Point (AP) of the WLAN terminal and the WLAN terminal at a communication quality level;

revising the selected coding scheme from the plurality of supported coding schemes based upon the communication quality level delivered between the AP and WLAN terminal.

In a similar endeavor, Pepin teaches or suggests source and channel rate adaptation for VOIP. Pepin also teaches or suggests receiving incoming and outgoing user communications at a user interface of a WLAN terminal (wirelessly receives voice/data between terminal 102 and 120 as described in paragraph 0035);

exchanging packetized communications between a servicing Access Point (AP) of the WLAN and the WLAN terminal at a communication quality level (i.e., the communication between terminal 102 and access points 104 as illustrated in fig. 1 and described in paragraph 0035);

revising the selected coding scheme from the plurality of supported coding schemes based upon the communication quality level delivered between the AP and WLAN terminal (abstract, fig. 3, block 308 teaches or suggests adjusting source and channel code bit rates means to revise the coding scheme).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye's teachings and include a step of receiving incoming/outgoing user communications at a user interface of a WLAN terminal, exchanging packetized communications, and revising packetized communications.

The motivation/suggestion for doing so would have been to enable the user to communicate with a remote device wirelessly, ensure the connection reliability and achieve a maximum user perceived performance.

Regarding claim 13, Abaye and Pepin teach and suggest all limitations recited in claims as described above. Abaye also teaches or suggests exchanging packetized communications between the WLAN terminal and a far-end terminal (i.e., the communication in network 20 as illustrated in fig. 2);

monitoring a communication quality level between the WLAN terminal and the far-end terminal to determine the communication quality level delivered between the WLAN terminal and the far-end terminal (i.e., the usage of TRACE-ROUTE_REQUEST and RESPONSE, and the query and response of resource as illustrated in fig. 3 and described in col. 9, lines 29-50 and col. 10, line 61 - col. 11, line 11); and

revising the selected coding scheme from the plurality of supported coding schemes based upon the communication quality level delivered between the WLAN terminal and the far-end terminal (col. 11, lines 30-53 teaches or suggests updating the codec based on the bandwidth requirement, which is the quality level).

Regarding claim 14, Abaye and Pepin teach and suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the supported coding schemes comprise at least one audio and/or video coding

Art Unit: 2617

scheme selected from the group consisting of Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722, ITU-T G.722.1, ITU-T G. 722.2, GS M- EFR, GS M AMR, IMA/DVI ADPCM, Micro s oft ADPCM,LPC - 10E, CELP GSM 06.10, shorten, Real Audio, MPEG, ACE and MACE (col. 6, lines 38-56).

Regarding claim 15, Abaye and Pepin teach and suggest all limitations recited in claims as described above. Abaye also teaches or suggests monitoring the latency of a jitter buffer to determine the communication quality level between the AP and WLAN terminal, and the communication quality level delivered between the WLAN terminal and the far-end terminal (col. 4, lines 6-27 teaches or suggests monitoring jitter).

Regarding claim 16, Abaye and Pepin teach and suggest all limitations recited in claims as described above. Abaye also teaches or suggests interacting with the far-end terminal to revise the selected coding scheme (i.e., interacting in network 20 as described in fig. 3, and querying for quality level. See col. 5, lines 56-65 and col. 10, line 61 – col. 11, line 11).

Regarding claim 19, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audio communications (col. 5, lines 37-55).

Regarding claim 20, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audiovisual communications (col. 5, lines 37-55).

Regarding claim 21, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the audiovisual communications are video conferencing communications (col. 18, lines 29-35).

Regarding claim 22, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are video communications (col. 5, lines 37-55).

Regarding claim 23, Abaye teaches or suggests a Wireless Local Area Network (WLAN) terminal, comprising:

a programmable COder/DECoder (CODEC) (fig. 6, CODEC 310) communicatively coupled to and controlled by the processing unit that converts incoming packetized communications to incoming user communications and that converts outgoing user communications to outgoing packetized communications according to a selected coding scheme (fig. 6, D/A 31 and A/D 320 are used to convert incoming/outgoing communications. Control unit 340 and digital signal processing 346 are also used);

a user interface communicatively coupled to the programmable CODEC that receives the incoming user communications and that produces the outgoing user communications (fig. 6 illustrates terminal 14 includes a speaker 314 and microphone 316, which reads on user interface, are both connected to CODEC 310);

whereby the processing unit monitors the serviced packetized communications to determine a communication quality level delivered between the AP and LAN terminal, and between the LAN terminal and the far-end terminal (i.e., the control mechanism implemented in the WLAN terminal 14 monitors and analyzes throughput of the communications paths as described in col. 5, lines 56-65 and col. 7, lines 29-41);

whereby the processor communicates with the far-end terminal to determine a communication quality level delivered by the far-end terminal (col. 9, lines 65 to col. 10, line 17 describes the steps of using trace route and/or trace packet to determine the network resources from an originating network resource on a link to another network resource on data network 20. Also, see fig. 3, the TRACE_ROUTE_REQUEST AND TRACE_ROUTE_RESPONSE is communicated between terminal 14 and far-end terminal 16); and

whereby the processing unit chooses the selected coding scheme from a plurality of supported coding schemes, each associated with a different one of a plurality of codec protocols (col. 6, lines 38-56 describes a plurality of coding schemes, wherein each of the coding scheme is a different codec protocol. For example, G.711, G.729A, G.723.1, each is known as coding scheme. G.711 is

Art Unit: 2617

known as one codec protocol, G.729A is known as another codec protocol, and G.723.1 is known as a different protocol, etc.), based upon the communication quality level between the AP and LAN terminal, between the LAN terminal and the far-end terminal, and the far-end terminal (i.e., the selection of coding scheme is based on the quality level between end-to-end or the communication paths as described in col. 5, lines 56-65 and col. 7, lines 29-49).

Abaye, however, does not expressly teach or suggest:

a wireless interface that communicates with a servicing Access Point (AP) of the WLAN to service packetized communications;

a processing unit communicatively coupled to the wireless interface, whereby the processor communicates with a far-end terminal.

In a similar endeavor, Pepin teaches or suggests source and channel rate adaptation for VOIP. Pepin also teaches or suggests a wireless interface that communicates with a servicing Access Point (AP) of the WLAN to service packetized communications (i.e., the wireless communication between terminal 102 and an access points 104 as illustrated in fig.1 and described in paragraph 0034);

a processing unit (terminal 102 includes a processing unit) communicatively coupled to the wireless interface, whereby the processor communicates with a far-end terminal (wireless destination terminal 120 as illustrated in fig. 1 and described in paragraph 0035).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye's invention by including a

Art Unit: 2617

wireless interface that communicates with a servicing Access Point (AP) of the WLAN to service packetized communications and a processing unit communicatively coupled to the wireless interface, whereby the processor communicates with a far-end terminal.

The motivation/suggestion for doing so would have been to enable to the user to mobilize and still capable of communicating with another user remotely via a wireless network.

Regarding claim 24, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the supported coding schemes comprise at least one audio and/or video coding scheme selected from the group consisting of Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722, ITU-T G.722.1, ITU-T G.722.2, GS M- EFR, GS M AMR, IMA/DVI ADPCM, Microsoft ADPCM, LPC - 10E, CELP GSM 06.10, shorten, Real Audio, MPEG, ACE and MACE (col. 6, lines 38-56).

Regarding claim 25, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Pepin also teaches or suggests a jitter buffer whereby the processing unit monitors that latency of the jitter buffer to determine the communication quality level (paragraphs 0006 and 0011 discusses about jittering).

Regarding claim 28, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audio communications (col. 5, lines 37-55).

Regarding claim 29, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audiovisual communications (col. 5, lines 37-55).

Regarding claim 30, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the audiovisual communications are video conferencing communications (col. 18, lines 29-35).

Regarding claim 31, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are video communications (col. 5, lines 37-55).

Regarding claim 32, Abaye teaches or suggests a Wireless Local Area Network (WLAN) terminal, comprising:

a programmable COder/DECoder (CODEC) communicatively coupled to and controlled by the processing unit that converts incoming packetized communications to incoming user communications and that converts outgoing user communications to outgoing packetized communications according to a

Art Unit: 2617

selected coding scheme (fig. 6, D/A 31 and A/D 320 are used to convert incoming/outgoing communications. Control unit 340 and digital signal processing 346 are also used);

a user interface communicatively coupled to the programmable CODEC that receives the incoming user communications and that produces the outgoing user communications (fig. 6 illustrates terminal 14 includes a speaker 314 and microphone 316, which reads on user interface, are both connected to CODEC 310);

whereby the processing unit monitors the serviced packetized communications to determine a communication quality level delivered by the interface (i.e., the control mechanism implemented in the terminal 14 monitors and analyzes throughput of the communications paths as described in col. 5, lines 56-65 and col. 7, lines 29-41); and

whereby the processing unit chooses the selected coding scheme from a plurality of supported coding schemes, each associated with a different one of a plurality of codec protocols, based upon the communication quality level (col. 5, lines 56-65 describes a plurality of coding schemes or codec protocols such as G.711, G.729A, etc. Furthermore, col. 7, lines 29-49 describes the process of selecting coding scheme based on capacity and quality of service, which is the communication quality level of claimed limitation).

Abaye, however, does not expressly teach or suggest:

a wireless interface that communicates with a servicing Access Point (AP) of the WLAN terminal to service packetized communications;

a processing unit communicatively coupled to the wireless interface.

In a similar endeavor, Pepin teaches or suggests source and channel rate adaptation for VOIP. Pepin also teaches or suggests a wireless interface that communicates with a servicing Access Point (AP) of the WLAN terminal to service packetized communications (i.e., the wireless communication between terminal 102 and an access points 104 as illustrated in fig.1 and described in paragraph 0034);

a processing unit (wireless terminal 102 includes a processing unit) communicatively coupled to the wireless interface (wireless terminal 102 wirelessly communicates with wireless terminal 120 as illustrated in fig. 1 and described in paragraph 0035).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye's invention by including a wireless interface that communicates with a servicing Access Point (AP) of the WLAN terminal to service packetized communications and a processing unit communicatively coupled to the wireless interface.

The motivation/suggestion for doing so would have been to enable to the user to mobilize and still capable of communicating with another user remotely via a wireless network.

Regarding claim 33, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests whereby the processor communicates with a far-end terminal to indicate the selected

Art Unit: 2617

coding rate (fig. 3, CALL_SETUP includes a list of CODEC).

Regarding claim 34, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the supported coding schemes comprise at least one audio and/or video coding scheme selected from the group consisting of: Huffman encoding, ITU-T G.711, u-law, A-law, CCITT G.721, CCITT G.723, ITU-T G.726, ITU-T G.723.1, ITU-T G.723.1A, ITU-T G.729, ITU-T G.729A, ITU-T G.729AB, ITU-T G.729E, ITU-T G.728, ITU-T G.722, ITU-T G.722.1, ITU-T G.722.2, GSM-EFR, GSM AMR, IMA/DVI ADPCM, Microsoft ADPCM, LPC-10E, CELP GSM 06.10, shorten, Real Audio, MPEG, ACE and MACE (col. 6, line 38-56).

Regarding claim 35, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests a jitter buffer whereby the processing unit monitors the latency of the jitter buffer to determine the communication quality level (col. 4, lines 6-27 teaches or suggests monitoring jitter).

Regarding claim 36, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests whereby the processing unit further interacts with a far-end terminal in choosing the selected coding scheme (col. 9, line 65 – col. 10, line 31 teaches or suggests

Art Unit: 2617

monitoring and discovering resource requirements in order to select the optimal coding scheme or codec protocol).

Regarding claim 39, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audio communications (col. 5, lines 37-55).

Regarding claim 40, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the user communications are audiovisual communications (col. 5, lines 37-55).

Regarding claim 41, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests wherein the audiovisual communications are video conferencing communications (col. 18, lines 29-35).

Regarding claim 42, Abaye and Pepin teach or suggest all limitations recited in claims as described above. Abaye also teaches or suggests the user communications are video communications (col. 5, lines 37-55).

6. Claims 17, 18, 26, 27, 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abaye et al. (hereinafter "Abaye", US 7,260,060) in view of Pepin et al. (hereinafter "Pepin", US 2004/0160979) and further in view of Wheeler et al. (hereinafter "Wheeler", US 7,242,932).

Regarding claim 17, Abaye and Pepin teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest monitoring a plurality of APs by the wireless terminal and selecting the servicing AP based upon an expected service quality level.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests monitoring a plurality of APs by the wireless terminal and selecting the servicing AP based upon an expected service quality level (col. 5, lines 34-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abaye and Pepin and include the step of monitoring a plurality of APs by the wireless terminal and selecting the servicing AP based upon an expected service quality level.

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Regarding claim 18, Abaye, Pepin and Wheeler teach or suggest all limitations recited in claims as described above. Wheeler also teaches or suggests wherein monitoring the plurality of APs further comprises:

querying at least one of the plurality of APs to determine the expected service quality level from the AP (col. 5, lines 34-40); and

registering with a new servicing AP when the expected service quality level to be provided by the new servicing AP exceeds the expected service quality level provided by the servicing AP by a predetermined service quality level (col. 5, lines 41-67 teaches or suggests the registration process).

Regarding claim 26, Abaye and Pepin teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest whereby the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level (col. 5, lines 34-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abaye and Pepin and include the step of the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Regarding claim 27, Abaye and Pepin teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest features of this claim.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests whereby the wireless interface:

monitors a plurality of APs (col. 5, lines 34-40);
queries at least one of the plurality of APs to determine a service quality that could be provided by the AP (col. 5, lines 34-40); and
registers with a new AP when a service quality to be provided by the new servicing AP exceeds a service quality provided by the servicing AP by a predetermined service quality level (col. 5, lines 41-67 teaches or suggests the registration process).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Abaye and Pepin's teaching by including the steps of monitoring, querying and register with a new AP when a service quality to be provided by the new servicing AP exceeds a service quality provided by the servicing AP by a predetermined service quality level

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Regarding claim 37, Abaye and Pepin teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest whereby the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests whereby the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level (col. 5, lines 34-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abaye and Pepin and include the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Regarding claim 38, Abaye and Pepin teach and suggest all limitations recited in claims as described above, but do not expressly teach or suggest features of this claim.

In a similar endeavor, Wheeler teaches or suggests a mobile internet protocol on a signaling channel. Wheeler also teaches or suggests whereby the wireless interface:

monitors a plurality of APs (col. 5, lines 34-40);

queries at least one of the plurality of APs to determine a service quality that could be provided by the AP (col. 5, lines 34-40); and

registers with a new AP when a service quality to be provided by the new servicing AP exceeds a service quality provided by the servicing AP by a predetermined service quality level (col. 5, lines 41-67 teaches or suggests the registration process based on signal strength).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abaye and Pepin and include the wireless interface monitors a plurality of APs and selects a servicing AP based upon an expected service quality level.

The motivation/suggestion for doing so would have been to ensure that the user is properly authenticated and get the optimal services provided from the service providers.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WAYNE CAI whose telephone number is (571)272-7798. The examiner can normally be reached on Monday-Thursday from 8:00 a.m. to 6:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on (571) 272-7603. The

Art Unit: 2617

fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Wayne Cai/
Examiner, Art Unit 2617